

**CLAIMS:-**

1. A printhead assembly for carrying a printhead, comprising:  
an elongated core;  
5 a MEMS printhead bonded to the core;  
the core being contained within an outer laminated shell, the shell and core together  
having an effective coefficient of thermal expansion substantially equal to that of  
the printhead.
- 10 2. A printhead assembly according to claim 1, wherein:  
the outer shell is formed from different materials laminated together, the laminate  
having inner and outer layers which are of the same metal.
3. A printhead assembly according to claim 1, wherein:  
15 the printhead is fabricated from silicon.
4. A printhead assembly according to claim 1, wherein:  
the outer shell has an odd number of longitudinally extending layers, being at least  
three in number, layers being arranged symmetrically about a central layer.  
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5. A printhead assembly according to claim 1, wherein:  
a coefficient of thermal expansion of the core and a coefficient of thermal  
expansion of the shell are different.
- 25 6. A printhead assembly according to claim 4, wherein:  
the laminated shell comprises two or more different materials, each having a  
different coefficient of thermal expansion.
7. A printhead assembly according to claim 1, wherein:  
30 the extrusion comprises adjacent reservoirs which collectively lead to an area  
adapted to receive a printhead which is carried by the core.

8. A printhead assembly according to claim 2, wherein:  
the laminated shell comprises inner and outer layers of invar.
9. A printhead assembly according to claim 1, wherein:  
5 the core is an extruded and elongated body having a plurality of interior reservoirs,  
the reservoirs each having an ink exit opening, the openings converging into an area  
adapted to receive the printhead.
10. A printhead assembly according to claim 1, wherein:  
10 the body is a plastic extrusion.
11. A printhead assembly according to claim 1, wherein:  
the core is adapted to be encased by the shell, the body and shell.
- 15 12. A printhead assembly according to claim 11, wherein:  
the body includes a portion which protrudes beyond the shell, this portion receiving  
the printhead.
13. A printhead assembly according to claim 10, wherein:  
20 the body is internally subdivided by extruded membranes to define the reservoirs.
14. A printhead assembly according to claim 13, wherein:  
the reservoirs are four in number.
- 25 15. A printhead assembly according to claim 1, wherein:  
the core has a coefficient of expansion which is less than the coefficient of  
expansion of silicon, and the shell has a coefficient of expansion which is greater  
than the coefficient of expansion of silicon.
- 30 16. A printhead assembly according to claim 1, wherein:  
the shell comprises at least two materials bonded to one another and having  
coefficients of expansion which are different than the coefficient of expansion of

silicon, one material having a coefficient of expansion which is greater than the coefficient of expansion of silicon and another material having a coefficient of expansion which is less than the coefficient of expansion of silicon.

- 5     17.     A printhead assembly according to claim 1, wherein:  
the laminated shell comprises hot rolled layers of metal.
- 18.     A printhead assembly according to claim 1, further comprising:  
a modular printhead bonded to the core, the printhead comprising a plurality of  
10     modules disposed along the core.
- 19.     A printhead assembly according to claim 18, wherein:  
each module is fabricated from silicon.
- 15     20.     A printhead assembly according to claim 19, wherein:  
each module further comprises a MEMS structure.